

Patent Claims

1. Strand-form vehicle seal, equipped with a flexible reinforcement with U- or C-form cross section or one derived therefrom,
characterized in
that the reinforcement forms a strand of at least two different substances, which is comprised of individual sections (1) of a nonmetallic, soft-elastic material together with individual sections (2) of another nonmetallic, however dimensionally stable and rigid, material with the individual sections (1, 2) of the reinforcement being disposed intermittently alternating one after the other.
2. Strand-form vehicle seal as claimed in claim 1,
characterized in
that the sections (1) of the nonmetallic, however soft-elastic material, have a different or the same length as the sections (2) of the nonmetallic, however dimensionally stable and rigid, material.
3. Strand-form vehicle seal as claimed in claim 1,
characterized in
that the lengths of the sections (1) of the nonmetallic, however soft-elastic, material and/or the lengths of the sections (2) of the nonmetallic, however dimensionally

stable and rigid, material vary within the strand.

4. Strand-form vehicle seal as claimed in claim 1,
characterized in
that the nonmetallic, however soft-elastic, material is a thermoplastic elastomer.
5. Strand-form vehicle seal as claimed in claim 1,
characterized in
that the nonmetallic, however dimensionally stable and rigid, material is a
synthetic material.
6. Strand-form vehicle seal as claimed in claim 1 to 5,
characterized in
that the reinforcement strand is ensheathed entirely or partially with one or several
soft or synthetic materials (3).
7. Strand-form vehicle seal as claimed in claim 6,
characterized in
that the additional soft or synthetic materials (3) enclose entirely or partially at
least one hollow volume.

8. Method for the production of a strand-form vehicle seal, which is equipped with a flexible reinforcement with U- or C-form cross section or one derived therefrom, characterized in
- that the reinforcement is formed as a strand of at least two different substances, in that a nonmetallic, soft-elastic material is formed out in individual sections (1) together with another nonmetallic, however dimensionally stable and rigid, material in individual sections (2), with the individual sections (1, 2) intermittently being disposed alternating one after the other.
9. Method as claimed in claim 8, characterized in
- that the reinforcement strand is formed out in an extrusion process.
10. Method as claimed in claim 8, characterized in
- that the reinforcement strand is formed out in an injection molding process.
11. Method as claimed in claim 9 or 10, characterized in
- that as the nonmetallic, however soft-elastic, material is selected a thermoplastic elastomer.

12. Method as claimed in claim 9 or 10,
characterized in
that as the nonmetallic, however dimensionally stable and rigid, material a
synthetic material is selected.
13. Method as claimed in claim 8,
characterized in
that the sections (1) of the nonmetallic, however soft-elastic, material have a
different or the same length as the sections (2) of the nonmetallic, however
dimensionally stable and rigid, material.
14. Method as claimed in claim 8,
characterized in
that the lengths of the sections (1) of the nonmetallic, however soft-elastic, material
and/or the lengths of the sections (2) of the nonmetallic, however dimensionally
stable and rigid, material vary within the strand.
15. Method as claimed in claim 8 to 14,
characterized in
that the reinforcement strand is ensheathed entirely or partially with one or a
further soft or synthetic materials (3).

16. Device for the production of a strand-form vehicle seal, which is equipped with a flexible reinforcement with U- or C-form cross section or one derived therefrom, with the reinforcement strand being formed of at least two different substances which are disposed as individual sections intermittently, in each instance alternating one after the other, comprising at least two extruders (6, 7) and a common injection head (8),
characterized in
that between the two extruders (6, 7) and the common injection head (8) an intermittence device (9) is disposed which divides the strands (10, 11) of the two extruders (6, 7) and presses the divided extrudate compositions alternating continuously one after the other into the common injection head (8).
17. Device as claimed in claim 16,
characterized in
that the intermittence device (9) is comprised of two rotors (12, 13) which have at their circumference recesses (14) and between these recesses (14) projections (15),
with the projections (15) of the one rotor (12, 13) extending in each instance into the recesses (14) of the other rotor (13, 12),
that the geometric form of the projections (15) and of the recesses (14) is selected

such that the circumference of the recess (14) into which it extends, rolls out on the circumference of the recess (14) and, in the process, reduces the volume in this recess (14) between the circumference of the recess (14) and the circumference of the projection (15), and

that in the housing (17) a stationary opening (18) is provided leading to the injection head (8) at the site of the chamber formed by the inner circumference of the recess (14) and the outer circumference of the projection (15) for the discharge of the extrudate from this chamber continuously changing in its volume.

18. Device as claimed in claim 17,

characterized in

that the flanks of the chamber have involute form.

19. Device as claimed in claim 17,

characterized in

that each rotor (12, 13) has its own drive.

20. Device as claimed in claim 17,

characterized in

that the intermittence device (9) comprises at least one bypass (19) which can be actuated on and off for a sequential actuating on and off of the soft and/or hard component.

21. Device as claimed in claim 17,
characterized in
that the rotors (12, 13) can be exchanged pairwise against others with a different
fill volume.
22. Device as claimed in claim 17,
characterized in
that the rotors are equipped with the same or different chamber volumes.
23. Device as claimed in claim 17,
characterized in
that the rotors are supported in friction or roller bearings.